

Fleming (A.)

ADDRESS IN MEDICINE.

EMOTIONAL FEVER.

BY

ANDREW FLEMING, M.D.,

PITTSBURGH, PENNSYLVANIA.

EXTRACTED FROM THE TRANSACTIONS OF THE MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA FOR 1879.



PHILADELPHIA:
COLLINS, PRINTER, 705 JAYNE STREET.

1879.

ADDRESS IN MEDICINE.

EMOTIONAL FEVER.

BY

ANDREW FLEMING, M.D.,

PITTSBURGH, PENNSYLVANIA.

EXTRACTED FROM THE TRANSACTIONS OF THE MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA FOR 1879.



PHILADELPHIA:
COLLINS, PRINTER, 705 JAYNE STREET.

1879.

ADDRESS IN MEDICINE

W. MORTON D. R. HENRICH

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

THE ADDRESS WAS DELIVERED AT THE ANNUAL MEETING OF THE
AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL., MAY 15, 1906.

EMOTIONAL FEVER.

THE powerful influence of the mind in the production, modification, and cure of undoubted diseases, is one of the generally accepted truths of medicine.

Mental distress, of whatever kind or character, by lowering the power of the nervous system, and thereby diminishing the capacity in the individual to resist epidemic influence, becomes one of the indirect causes of several infectious and contagious disorders, such as yellow fever, cholera, typhus, plague, and smallpox. Emotional disturbance, as a direct cause of disease, has been well known from the earliest time, as is most clearly demonstrated, in the vivid and graphic description given by Hippocrates, of the case of the woman in Tharsus, the wife of Dealces, lodged upon the plain, who, from sorrow was seized with an acute fever attended with chills. During the long period of time which has since supervened, daily experience has proved the correctness of this practical observation.

Among practitioners of medicine there is a general belief, in the existence of a disease arising solely from emotional cause, having a specific but varied train of physical phenomena, which, on account of certain points of common similarity, is constantly mistaken for, and confounded with, typhoid fever. The earnest and assiduous student will seek in vain in the systematic works on the practice of medicine for any mention of such actual disease, or a correct description of emotional complication as a modifying feature of any febrile disorder. By many whose experience is somewhat extensive, this disease is recognized as an entity, and, when spoken of, for want of a more precise term is called nervous fever.

When employed to denote a purely emotional malady the term nervous fever will be found to be confusing and inappropriate, because it is indiscriminately applied to all forms of ataxic fever, and

it has been used for a long time as a synonym for enteric or pythogenic fever. Some difficulty has been experienced in contriving a technical term to more suitably designate the febrile disturbance herein described, and the name emotional fever has been chosen as being the least objectionable, the most convenient, and, from the etiology of the disease, sufficiently applicable.

An emotion of trivial kind occurring in a healthy person is quickly calmed and in a short time every trace of its invasion is completely obliterated. When of active form but of transitory duration, the organic processes become more or less involved, and the secretions of the mucous surfaces, the skin, the liver, the kidneys, and other organs are effected in volume or in quality, and perhaps in both. Where there is no existing cerebral impairment, nor any known predisposition thereto in a subject, the prolonged continuance of an emotional state, especially when of a depressing character, sometimes produces complicated disorders of the organic mechanism, which persist long after the total cessation of the originating emotional cause. Contrary to the teachings of scholastic philosophy, an emotion may be a wholly objective or a purely subjective sensation, or it can be of mixed quality and composed of both, when is constituted a true commotion of the mind and body, at the same time.

To convey, in plain language, an accurate delineation of the great diversity of symptomatic manifestations of the physical organism evolved in emotional fever, substantial and well-defined as they may exist in the observer's mind, is a task more difficult than that of the artist, who strives to faithfully transfer to canvas the changing lineament of expression of the human countenance. From the psychical nature of its cause, these modifications differ as widely as the well-known, but difficult to describe, variations of personal character. It is only caused by moral emotion and perturbation of the affective faculties. The most common of these are fright, grief, love, anxiety, disappointment, mortification, and shame, of such degree as to overpower the moral control or disturb the mental tranquillity, but without inducing any delusions or derangement of the mind.

The strange affection, nostalgia, arising from necessary or compulsory absence from home, wherein the victim is wholly engrossed in the intense longing and insupportable desire to once more behold his native land, which is often accompanied with febrile symptoms, rapid wasting of the flesh, and extreme emaciation, and even sometimes ends fatally, may without violence be termed emotional fever in its typical, unquestionable, and uncomplicated form.

Excessive mental application to business, anxiety, and loss of

sleep in the care of an invalid, the inordinate use of alcoholic liquors, the uninterrupted employment of the various preparations of opium, bromide of potassium, chloral hydrate, and other articles which undermine the healthful integrity of the nervous system, are among the most prominent of the predisposing causes of emotional fever. These drugs are often taken at first to relieve the distressing insomnia caused by mental trouble, or to blunt the sensibilities to real and vexatious affliction, and by frequent repetition their use becomes a confirmed habit.

Liability to disease is equally common to all conditions of life; poverty does not increase its frequency, nor does great wealth insure exemption therefrom. Those persons, whether rich or poor, who are most fully endowed with strong emotional impressionability are the most liable to attack. From this condition it can be safely presumed that the proportion of females would greatly exceed that of males, in a large number of cases, but the excess is not so large as a limited experience would incline one to believe.

Emotional fever is not generated by any miasmatic influence, and is not affected by any known meteorological condition or atmospheric vicissitude. It may be more prevalent in times of commercial disaster and financial distress, and is nearly always a sporadic disease. Under extraordinary circumstances, however, it might possibly be considered endemic, as it has prevailed extensively in large armies, among emigrants, and in different localities, during periods of great fanatical religious excitement, without regard to any particular creed. It is rarely a disease of childhood; it is particularly one of adult or middle age, and is not often seen in advanced life. When met with in the aged, it is found in those persons, who, having outlived all or nearly all of their early friends, and having lost all further interest in prolonging life, suddenly fall sick, without any decided local inflammation, gradually sink under a slow fever and gently pass away.

There are many febrile diseases which, though not limited in every instance to an exact number of days, run a course of average time, with stages more or less distinct, indicative of the pathological routine peculiar to each of these disorders, that can be divided with something like uniformity. An indefinite duration and the total absence of all critical days capable of numerical division are the most distinguishing characteristics of emotional fever. It may run a favorable course, ending in a few days in rapid recovery, leaving no trace whatever of its invasion; it can terminate fatally without regard to any special period of time; or it may last for three or more months, with such severity and intensity as to keep the life

of the patient in great jeopardy during several weeks of its continuance, closing finally with a tedious convalescence, sometimes protracted even to years, with a nervous system shattered perhaps for life.

In the cases of short duration, the emotional element or passion will usually be found to be of trifling importance. In what might be termed the chronic form of the disease, the causation may be sudden or long persistent, and the mode of inception either violent and abrupt, or progressive and slow. The attack may quickly ensue from overwhelming grief at the unexpected loss of a dear relative or friend by accidental cause or by sudden death from rapid disease, or from the occurrence of some other kind of dreadful calamity. Under a long continued effort to manfully bear up "against a sea of trouble," or the prolonged strain to appear uniformly tranquil, while oppressed by a long endured and concealed, but poignant sorrow, the physical strength of the body gradually fails to a certain point, when the constitution, strong as it may have been, breaks down all at once, and the disease is suddenly developed in full career. In such condition the prostration is extreme, and the disease assumes its most intractable shape, owing to the impairment of recuperative energy caused by the exhausting continuance of the depressing emotion.

Although there is no well-defined periodicity belonging to this febrile condition, occasionally a periodical variation can be discovered, with slight amelioration of the activity in the symptoms, which takes place every second day, such as is often witnessed in chronic diseases of the nervous system. An exceptional departure from this observance was shown, in the case of an unmarried lady, thirty-two years of age, the worst example of emotional fever that has ever fallen in the line of my duty to treat, in which, after the disease had continued with active febrile disturbance for sixteen days, an alarming exacerbation, attended with violent dyspnoea and prostration, suddenly took place, without any visible physical alteration to explain the perilous change. Without any premonitory sign a relapse of the same description came on every Wednesday morning, between nine and ten o'clock, for three successive weeks. It took nearly the whole week to regain the ground lost by these spells of exhaustion. The frequent recurrence of the paroxysms with such exactitude almost upset the implicit faith of my diagnosis, and the possibility of having failed to recognize a case of relapsing or famine fever, was sharply forced upon my mind. A full and careful examination of the whole case however served to remove any doubt, and fully confirmed the correctness of my first decision, although no

explanation of the cause of the repeated sinking, could be obtained from the patient or any other person in attendance. The elucidation was given by the patient, a long time afterwards; it was simply caused by the expected receipt of a weekly letter on the day mentioned, in which news of some fresh vexation was each time anticipated, and the regularity of the postman's round determined the punctuality of the hour.

Emotional fever is a disease which has no distinct prodromata. The slowly increasing debility preceding the more active febrile condition of the sluggish and progressive mode of inception cannot be so denominated, as it is indistinguishable from that seen in anæmia, chronic dyspepsia, and many other diseases.

Symptoms.—When arising from nervous shock the disease is ushered in with a distinct chill, followed by an active fever, hot skin, rapid pulse, violent headache, intolerance of light, with symptoms of hysterical aspect alternating with those more inflammatory in appearance. In the more passive kind of beginning the chilliness lasts only a short time and is succeeded by periods of oppressive heat. Slight chills or chilliness take place, from trifling extraneous cause, at any time during the continuance of the disease, and do not appear to arise from any discoverable incidental inflammation. A profuse sweat sometimes covers the forehead and upper part of the neck, even when the remainder of the surface is hot and parched. The secretion of the mouth is much altered; the saliva is thick and viscid, the tongue is covered with a firm heavy coat, uniform throughout, but not red or cracked, and the odor arising from the breath is very unpleasant, and, in the severest cases, recalls the offensive smell found in acute mania. There is a total loss of appetite, and the patient loathes the sight of food. Owing to the complete indifference frequently manifested as to the issue of the case, much difficulty is often encountered in administering any preparation of aliment in sufficient quantity to hasten recovery or sustain life. The thirst is at times absolutely insatiable, and is not alleviated by the copious draughts of liquids in constant demand. In the milder cases the temperature is but slightly elevated, and in those of great severity it may reach as high as five degrees above the normal standard. The pulse, in the majority of instances, is quite frequent, from 110 to 120, small, quick, compressible, and occasionally irregular.

At the onset the respiration is rapid and hurried, but as the case progresses, especially in one where the inchoation has been protracted, the style of breathing peculiar to the disease is developed, which is, as the ancients termed it, rare and large, or deep, sighing

and very slow, and closely resembles that witnessed in idiopathic fevers complicated with inflammation or congestion of the brain. In the severest cases, where the helpless prostration is very decided, the period of expiration on some occasions is so prolonged as to create serious apprehension of imminent death from defective aëration of the blood, or from cessation of the action of the heart. Notwithstanding the alarming embarrassment to the respiration, although there is from time to time a convulsive movement of the thorax to obtain the much needed supply of fresh air, there is no cough, and the most careful physical examination of the chest fails to discover any congestion or structural defect sufficient to account for this abnormal breathing.

Owing to the distraught mental condition of the patient, the insomnia and restlessness are very distressing, making him dread the approach of night. Sleep, when artificially procured, is often disturbed by frightful dreams, and fails to bring to the sufferer the much desired repose of body and mind. The patient is on the alert, and is harassed by the anticipation of trouble in some insidious guise. There is no stupor or unconsciousness, and it is quite uncommon to observe any active delirium or mental hallucination. The intellect remains unclouded, and the faculties are undisturbed in cases where it might be least expected. From profound agitation of the nerve centres the perfect control of the voluntary muscles may be partially lost, and the patient still retain guidance over his thoughts. This was strikingly exemplified in a man forty-two years of age, a book-keeper in a large business in this city, who was accused of steadily purloining small sums during a long period of time, which in the aggregate reached a large amount of money. He was arrested and released on bail a few hours after. On visiting him at his dwelling soon after his release, he presented the following condition: The pulse was irregular, jerking, and frequent; the tongue was heavily coated, and a sticky mucus lined the cavity of the mouth; the skin had a dusky hue and was very hot and dry over the whole surface, except the forehead, where great drops of sweat stood in relief; the limbs were quivering, and the muscles of a large part of the body were in violent action, like one in the cold stage of an ague fit; and both eyes had a convergent squint so pronounced that nothing but the whites of them could be seen; in all combining a ghastly portraiture of horror it is impossible to describe. With all this physical commotion, his mind was clear and his memory unaffected. He was able to converse in rather a composed manner about the affair, and spoke quite plainly and sensibly.

After a long and tedious illness, notwithstanding his deplorable condition he eventually completely recovered.

There is nearly always increased sensibility of the skin, and occasionally there is great hyperæsthesia of the entire cutaneous surface. In one case, I found this so excessive that the touch of the hand, even in the gentlest manner, sent a thrill through the whole frame like a slight electric shock, and the vibration of a foot-fall in the room provoked much suffering. The skin retains its vitality, and little trouble is experienced from the formation of bed-sores. Sudamina can be found when the dryness of the integument has subsided and a slight moisture can be discerned. They are no longer believed to be pathognomonic of any particular variety of fever, as they are now known to occur in hot climates, on the skin of persons in full health, and are common to both idiopathic and traumatic fever when attended with moderate perspiration.

The sense of hearing, which is commonly rendered so obtuse in continued fever, is nearly always exalted to a painful and distressing degree. Owing to the abnormal acuteness of hearing a patient is sometimes unable to sleep from being aroused by the slightest sound. In excessive exaltation of this special sense recourse may be had to stuffing the ears with cotton to procure repose. There is great intolerance of light, but, with the exception of a slight dulness of the natural expression, the eye displays nothing remarkable.

In cases with decided prostration there is an oppressive sinking at the epigastrium, and sometimes tenderness on pressure over the region of the solar plexus. Nausea when present is occasionally accompanied with spasmodic vomiting of undigested food. The bowels are nearly always constipated. The urine is voided without difficulty, and is extremely variable in appearance and quantity.

In order to make the difference of the phenomena of the two diseases more apparent, it might be stated, that in emotional fever there is no epistaxis, diarrhœa, tenderness of the right iliac region, distension of the abdomen, except when occurring from fecal accumulation, cough, specific odor of the surface of the body, or rose-colored spots, such as belong to the initial and current symptoms of typhoid fever.

Diagnosis.—When the emotional cause of the disease is at once acknowledged by the patient, or communicated by the attendants, no great difficulty is encountered in arriving at a satisfactory diagnosis. But the patient may be ignorant of the originating cause; he may have a strong desire to convince himself it is some organic disease, or when the cause is known it is the last thing to be openly confessed. Where the requisite information is withheld, the accuracy

of the diagnosis must rest mainly on a careful analysis of all the symptoms present, and a comparison therewith of those found in other fevers, especially in typhoid. The absence of any structural change will enable any one, who is careful to make the physical examination of the various organs, to mark the difference at the onset, and, as the disease progresses, the distinction becomes more marked and prominent. In emotional fever, there is a preoccupation of the mind and a certain shadow in the countenance difficult to portray, that casts a quiet gloom over the face, which, to those who from experience are capable of interpreting the hieroglyphics of the physiognomy, afford a valuable aid in recognizing the precise nature of a case.

Subacute metritis occurring in the unimpregnated uterus with flexure of the organ, is often attended by febrile symptoms and general appearances which so closely resemble those of true emotional fever, as to be easily mistaken therefor. The constant pain in the left iliac region, very rarely in the right, the dysmenorrhœa, the leucorrhœa, and the history of the case will elucidate the difference.

Prognosis.—A fatal termination in emotional fever may be justly regarded as extremely rare. Even in those cases where the debility and prostration are so excessive that death seems almost inevitable, there is always a probability of recovery.

Treatment.—No systematic plan can with confidence be adopted in the treatment of a disease having such manifold phases and variability of symptoms. These can only be prescribed for as they arise, and much care will be required to accurately note their alterations from day to day. The whole effort should be directed to sustain the failing energy of the patient by active tonics, nourishing and easily digested food, alcoholic stimulants when demanded, and the cautious administration of anodynes to obtain repose. Much care should be exercised in the use of purgatives, as they are quite apt to act with unexpected violence and induce prostration. The most important object to be attained is the removal or diminution of the emotional cause.

Pathology.—In the pages of medical literature and in Forensic Medicine, there are several well-authenticated cases recorded, where death has resulted in persons of robust health, in a brief space of time or even immediately, solely from intense and excessive emotion, such as joy, fright, grief, and chagrin. In these cases, careful necroscopic examination failed to discover any organic lesion whatever. As such fatal consequence has been produced by mental emotion alone, it is not unreasonable to believe, that, where from

capacity of resistance, moral control, and other conditions, such disastrous termination has been warded off, a profound perturbation of the whole economy, with equal freedom from discoverable organic complication, may be induced by the same cause, exhibiting a group of morbid symptoms, which can be recognized and described.

Death has occurred from prolonged suffering and exhaustion, after the long-continued prevalence of active febrile symptoms, which have left behind no trace of inflammation or visceral lesion to explain the fatal issue. Dr. Robert Graves, in Lecture XIII. of his *Clinical Lectures*, delivered in Dublin, in 1834, gives the result of an autopsy, in the case of a man, who had been ill for a long time, with nervous fever, a disease with pure fever of nervous type, unaccompanied by any symptoms indicating decided local inflammation. "Eighteen hours after death we made a most careful examination of all the viscera of the three great cavities; not a single organ exhibited the least mark of inflammation; we could not find anywhere even the slightest trace of local congestion. The man had all his viscera in an apparently sound and normal condition, and died of pure nervous fever."

In connection with this case he makes the following striking observation: "Some persons look upon the existence of fever independent of topical affection as purely imaginary, and deem those who have recorded such forms of disease, as too ignorant, or too lazy, to make the necessary pathological investigations. I have not time at present to enter into this subject, but of nothing am I more convinced, than that fever may exist without any appreciable local lesion, that it may affect every organ and tissue of the body alike, and yet that the most accurate symptomatologist cannot lay his finger on any one single part and say, 'here is local inflammation of a decided character.' I have met with many instances confirmatory of this fact in hospital practice. I recollect a case which occurred some time ago at this hospital, which was equally remarkable for its extraordinary duration, as for the total absence of anything like visceral lesion. The patient was admitted into the small fever ward, laboring under an attack of nervous fever; he had thirst, hot skin, pulse from 110 to 120, occasional delirium and watchfulness, and these symptoms went on week after week, and month after month, unaccompanied during the whole course of the disease by any phenomena indicating the existence of local inflammation. His treatment was purely expectant and temporizing; we had no cerebral, abdominal, or thoracic lesion to combat; there was no organ in which the febrile derangement could be said to have fixed itself exclusively, no threatening disorganization calling for the prompt em-

ployment of new and energetic means. At last, after the fever had continued for very nearly three months, the man complaining all the time of more or less thirst, hot skin, watchfulness, and headache, with occasional delirium, the disease terminated in a well-marked crisis accompanied by sweating. He fell asleep, began to perspire, awoke with a pulse nearly reduced to the natural standard, and perfectly recovered."

The description of all the phenomena in the latter case corresponds in every particular so exactly with those which prevail in emotional fever, that emotional complication suggests itself as a satisfactory explanation of the extraordinary duration of the disease.

The same independence of any organic lesion, described by Dr. Graves in the two cases already cited, commonly obtains in emotional fever, and may continue throughout the whole course of the disease. The absence of visceral affection at the beginning does not at all preclude the possibility of congestive or inflammatory complication at any time. On the contrary, owing to the depraved condition of the whole system and the disorder of nutrition arising therefrom, the liability to such modification is always present and constitutes the great hazard to life.

Although no pathological state of any organ, sufficient alone to create the abrupt departure from health or cause the destruction to life, witnessed in emotional fever, can be discovered or supposed to exist, it is entirely unsatisfactory to think that the important and grave effects already described, could take place without a co-equal dynamic alteration being effected upon some essential component of the organism.

The sympathetic nervous system is composed of a multitude of ganglia or nerve knots, which are widely distributed over the animal body, and are especially large and numerous in those organs intended for the functions of reproduction and nutrition. The ganglia consist of cellular and fibrillated structure, and have a proper nucleated capsule, proceeding from and continuous with the sheath of Schwann, covering the nerve fibres with which it is in connection. Every ganglion contains both motor and sensory nerves and its own special nerves. In the sympathetic ganglia there are both multipolar and unipolar cells, each cell appearing to be only an expansion of the axis cylinder of the nerve.

Each sympathetic ganglion possesses the elements of a nervous centre and is capable of receiving, transmitting, reflecting, and originating impressions. On this endowment of the sympathetic depends its control over the physiological functions.

The close interweaving of the sympathetic with the cerebro-spinal nerves, and the impossibility of definite separation of the special functions of each, have given rise to the fruitless argument, whether the sympathetic is an independent organization or a mere appendage of the cerebro-spinal system. The intimate blending and the mutual correlation of these two systems have hitherto prevented an incontrovertible conclusion as to the exact localization of the emotional centres, whether in the medulla oblongata, the pons varolii, the optic thalami, the sympathetic, or in the sensorium.

Fortunately, for the present discussion it is not necessary to definitely localize the seat of the emotions, in order to arrive at a satisfactory elucidation. The point for determination concerned is, the result which succeeds the reception of a single class of emotions—those of a depressing character. When an emotion of this kind is experienced, the force of the blow is ultimately expended on the ganglia of the sympathetic system. The first effect of a depressing emotion is a disturbance of the circulation of the blood, followed by an impairment of digestion. By continuance of the cause, derangement of the nutrition and assimilation follows, as is evinced by rapid emaciation and consequent debility and prostration. Very much the same phenomena are rapidly developed by a violent blow received upon the epigastrium. The early symptoms of shock, prostration, and disturbance of the heart's action, which are produced by traumatic injury of the solar plexus, and those which occur from sudden and overwhelming emotion, are almost identical.

Amid the obscurities which surround the office or duties performed by the sympathetic in the general system, there is no longer any doubt entertained of its controlling power over nutrition. When active disturbance of this function takes place in a disease, that has no anatomical lesion to explain the rapid waste of tissue, fever, and other symptoms, it may be safely inferred that the sympathetic is the only medium through which this effect could be accomplished.

The conditions of emotional fever are thus all fulfilled in the continued perturbation of the process of reparative alimentation; and the direct relation of the disease to the phenomena established by the injury to the sympathetic ganglia is plainly indicated. The withdrawal of the proper stimulus afforded by the sympathetic is succeeded by a starvation of the tissues.

No anatomical proof can be offered that emotional fever is caused by pathological alteration of the sympathetic ganglia. Some equivalent molecular disintegration of these organs must take place to account for the defective alimentation. From the complete, and

sometimes abrupt, recovery which takes place in cases of the greatest severity, in the pure form of the malady, it may safely be presumed that this ganglionic disturbance is a disordered functional, and not a structural lesion.

The remarkable analogy between the symptoms of emotional fever and the febrile state evolved by the section of the sympathetic is of considerable interest in relation to the subject under discussion. "If," says Bernard, "we only suppose the generalization of the phenomena which we have observed as the result of the division of the ascending branch of the great sympathetic, we should have a true fever—increase of heat, a sense of oppression, rapid pulse, perspiration, brilliancy of the eyes, etc." "On the side on which the sympathetic has been divided, the blood preserves its bright red color while traversing the capillaries; the phenomena of nutrition do not take place."¹

It can be asserted that the phenomena arising in emotional fever from defective nutrition are all present in typhoid fever, and might with equal plausibility be attributed to the same cause—the morbid action of the sympathetic ganglia. This statement is perfectly true and undeniable.

It may be further said of typhoid fever, that it can be substantially regarded as wholly a disease of the sympathetic system. This is the only theory which affords a complete and philosophical explanation of all the phenomena of the disease. According to this view, the rose-colored eruption on the skin, the alteration of the glands of Peyer ending in papillation, ulceration, and even in gangrene, which are recognized as the specific pathological lesions of the disorder, are merely the trophic changes produced by the morbid derangement of the sympathetic ganglia.

Both emotional and typhoid fevers, it should be frankly admitted, have their pathological basis in the sympathetic system. Their originating cause is, however, wholly and widely different; the one arises solely from nervous emotion, whilst the other results from the introduction of a virulent miasmatic poison. This constitutes the important and essential distinction between the two diseases.

In this paper a clinical description of emotional fever has been given in the hope it may hereafter be more readily recognized, and more easily contrasted with any other fever. In order to accomplish this I have been compelled to constantly traverse the narrow and tortuous border-land which separates purely physical disease

¹ *Leçons de Pathologie Experimentale.* Par M. Claude Bernard, 1872, p. 347.

from mental alienation. The term emotion has been used throughout in the meaning attached thereto in daily life.

No claim to any originality of thought or of discovery can be here successfully advanced, as I have merely formulated the symptomatology of a disease whose existence every unprejudiced and experienced practitioner at some time in his career has been compelled to recognize.

The strict utilitarian may urge that no practical benefit will redound from such refinement of diagnosis, but the scientific precision of the present day demands that two diseases, which differ so much in their symptoms, and consequently demand a wholly different line of treatment, should be distinguished from one another.

